

Method Of Defining Forbidden Pitches For A Lithography Exposure Tool

ABSTRACT

A method of identifying and defining forbidden pitches or forbidden pitch ranges for a lithographic exposure tool under a given set of exposure conditions is provided. In the method, a computer simulation is performed, and its results are compared to frequently used pitches to see if such frequently used pitches may yield depth-of-focus (DOF) values greater than the focus budget for the exposure tool. If so, a verification test is performed by using a test mask and actually exposing a surface with the same pattern pitches simulated. From this, actual DOF values are obtained and compared to the focus budget of the exposure tool. Any pitches having a DOF value greater than the focus budget are designated as forbidden pitches. This forbidden pitch information may be integrated into a design rule to restrict the use of such forbidden pitches under the given exposure conditions where they are likely to arise.